## eMPower™ ME

## STUDENT SAMPLE ITEM BOOKLET Mathematics Grade 3







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## **Sample Items**

## **Directions**

Read each question and choose the best answer.

- **1.** A gym teacher is putting students into teams.
  - There are 24 students.
  - There will be 3 students on each team.

Which expression can be used to find the number of teams made by the gym teacher?

- A  $24 \times 3$
- **B**  $24 \div 3$
- C 24 + 3
- **D** 24 3
- **2.** Which expression is another way to write  $3 \times 8$ ?
  - $\mathbf{A} \quad 3 \times 6 + 2$
  - **B**  $3 + 6 \times 2$
  - **C**  $3+6\times3+2$
  - **D**  $3 \times 6 + 3 \times 2$

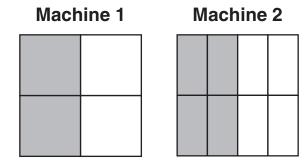
**3.** Maurice divided a rectangular garden into six equal parts. He plans to grow a different vegetable in each part of the garden, as shown.

Peas	Tomato	Onion
Squash	Pepper	Potato

What fraction of the garden is Maurice planning to use for onions?

- **A**  $\frac{1}{6}$
- **B**  $\frac{1}{5}$
- c  $\frac{5}{6}$
- **D**  $\frac{6}{1}$

- **4.** Two machines at a factory cut large squares of cardboard into smaller pieces, as shown.
  - Machine 1 cuts each large square into 4 smaller squares.
  - Machine 2 cuts each large square into 8 rectangles. Each rectangle is the same size.



- a. What fraction describes the shaded part of the large square cut by machine 1?
- b. What fraction describes the shaded part of the large square cut by machine 2?
- c. Is the shaded part of the large square for machine 1 equal in size to the shaded part of the large square for machine 2? Show your work or explain how you know.

At the factory, machine 3 cuts the large squares of cardboard into 6 rectangles. Each rectangle is the same size.

d. How many of the rectangles from machine 3 equal the shaded amount of rectangles from machine 2?

Use the information below to answer questions 5 and 6.

Look at this problem.

Mr. Neitzel set up 7 rows of folding chairs. There were 9 folding chairs in each row. He placed 2 tables between each row of chairs. Mr. Neitzel also set up 10 high chairs. How many chairs in all did Mr. Neitzel set up?

- **5.** What information is **not** needed to solve the problem?
  - A the number of rows of folding chairs
  - **B** the number of folding chairs in each row
  - **C** the number of tables
  - **D** the number of high chairs
- **6.** Emma used this equation to find the number of folding chairs Mr. Neitzel set up.

Which equation can Emma use to check her work?

- **A**  $\Box = 7 + 9$
- **B**  $\Box \div 9 = 7$
- **C**  $\Box$  7 = 9
- **D**  $\Box \times 9 = 7$